State of Wisconsin
Jim Doyle, Governor

Department of Agriculture, Trade and Consumer Protection
Rod Nilsestuen, Secretary

October 7, 2009

DATCP Testimony on Senate Bill 279 (Joint Legislative Council on Domestic Biofuels legislation)
Regarding financial assistance related to bioenergy feedstocks; biorefineries, conversion to biomass energy; definition of agricultural use for determining assessed value; requires strategic bioenergy assessment; study of regulatory burdens related to biofuel production facilities; etc.

Good Morning Senator Kreitlow and members of the Senate Rural Issues, Biofuels and Information Technology Committee and Representative Jorgenson and members of the Assembly Renewable Energy and Rural Affairs Committee. I am Gary Radloff, Director of Policy and Communications with the Wisconsin Department of Agriculture, Trade and Consumer Protection, and I am pleased to be here today on behalf of DATCP Secretary Rod Nilsestuen.

Wisconsin and the Midwestern States are leading the way in energy independence. In recent years, Wisconsin has overhauled our energy policy to make a major new commitment to renewable energy...our entrepreneurs are continually developing innovative ways to produce energy...and our businesses are investing in new technologies...and our University of Wisconsin faculty and researchers are global leaders in trying to break potential bottlenecks in order to catalyze next generation fuels.

Our continued diligence in promoting homegrown energy will help grow our economy out of its recent downturn; reduce our dependence on foreign fossil fuels, and protecting our environment.

Governor Jim Doyle has set a 25 by 25 renewable energy goal for Wisconsin. The state can achieve and exceed that goal using its agriculture and forestry sector-based biomass to energy resources in combination with existing and developing wind, solar, hydro and other renewable energy options. It is important to remember that agriculture and forestry feedstocks for biomass, while abundant, are still limited. That is why combining biomass to energy with solar, wind, methane digesters, geothermal options (some of which can be intermittent and subject to location) will be critical for meeting ongoing state energy needs.

What is called the BioEconomy refers to a fundamental shift in the resource base for several large components of the American economy.

Biofuels draw on biomass resources to produce transportation fuels.
Biopower refers to the generation of heat and electricity from biomass resources.
Bioproducts offer perhaps some of the most exciting long-term possibilities for the BioEconomy.

When one looks at the kind of economic potential that exists from the bioeconomy and the long-range environmental benefits from moving to renewable sources of fuel and power it becomes clear Wisconsin must continue to move aggressive in this direction. Senate Bill 279 helps Wisconsin do just that.

Senator Kreitlow and Representative Suder as chairs of the Special Legislative Council Committee on Domestic Biofuels provided key leadership in exploring all the issues that lead to Senate Bill 279. The committee members worked together to agree upon this comprehensive set of proposals before you. Senate Bill 279 gives Wisconsin many more tools in the tool kit for growing our homegrown energy resources.

A couple of key provisions that DATCP believes continue Wisconsin moving ahead on its biomass opportunities include:

- Provisions to extend state financial assistance program to support the establishment, production, harvest, storage and transport of bioenergy feedstocks: including the industrial revenue bond program

- Calling for a strategic biomass assessment: work has already been done in this area with DATCP and the Office of Energy Independence collaborating with partners at the University of Wisconsin.

- Creating the Bioenergy advisory council attached to DATCP. In a similar fashion DATCP and OEI have been collaborating on some draft harvesting guidelines with faculty and staff at the University of Wisconsin in this area.

- Expanding the agricultural diversification program (ADD grants) to include the promotion of marketable credits for reducing emissions of greenhouse gases.

- Requiring the Secretary of DATCP to periodically assess the development of markets for biomass feedstocks and the opportunity to collaborate with new business in the biomass sector through a future Marketing Order project.

These proposed new steps when combined with existing state and federal programs will continue to advance new generation biofuels, biopower and bioproduct development in Wisconsin.

Federal Energy Policy

1.) The biggest first step was with federal incentives was the Energy Policy Act of 2005 *(EPAct 2005)*. The bill created the nation's first Renewable Fuels Standard (RFS), which went into effect on September 1st, 2007, setting new reporting, registration, and compliance requirements for major refiners, fuel blenders, and fuel importers.

2.) Even more important, in December 2007, the **Energy Independence and Security Act of 2007** was signed into law. The Act expands the Renewable Fuels Standard (RFS), beginning with 9 billion gallons of biofuels in 2008. This will ramp up to 36 billion gallons of biofuels by 2022.

2008 U.S. Farm Bill

3.) In May, 2008, the U.S. Congress passed the Food, Conservation and Energy Act of 2008 (aka: the New Farm Bill). The new farm bill will accelerate the commercialization of advanced biofuels, including cellulosic ethanol, encourage the production of biomass crops, and expand the current Renewable Energy and Energy Efficiency Program.

Section 9003 provides for grants covering up to 30% of the cost of developing and building demonstration-scale biorefineries for producing "advanced biofuels," which essentially includes all fuels that are not produced from corn kernel starch. It also allows for loan guarantees of up to $250 million for building commercial-scale biorefineries to produce advanced biofuels.

Biomass Crop Assistance Program (BCAP):

One key step to success is building up a market to grow, harvest, aggregate, and deliver biomass to the end user. The Federal Farm Bill has created the Biomass Crop Assistance Program to help states build this new business opportunity to grow, harvest, aggregate and deliver biomass to end user.

The state can be a leader by using biomass as a substitute for coal at its energy generation facilities. Similarly, encouraging local governments and schools, such as the Fuel for Schools Program, creates an early stage market and supports infrastructure for biomass delivery. Another great opportunity for Wisconsin comes with

the new biomass boiler at the UW Madison's Charter Street Heating Plant which will be capable of burning up to 80 to 100 % biomass, everything from wood chips to switchgrass pellets, and will eventually be able to burn about 250,000 tons of biomass per year.

Madison's Charter Street plant is just one of several new biomass projects that have been announced in Wisconsin including Xcel Energy's Bayfront burner in Ashland, the E.G. Stoneman facility in Cassville, and a pending WE Energies project, to name a few. New jobs will be immediately created in Wisconsin with BCAP as agriculture cooperatives, agronomists, harvesting equipments businesses, saw mills look to organize the new biomass harvesting, collecting, pelletization and delivery businesses.

Biomass energy systems (sawmill and wood residues such as wood chips, hybrid poplar or willow and agricultural energy crops and residues like switchgrass, corn stover, oat hulls and straw) are a proven technology in the U.S. and the single largest source of renewable energy, comprising 48% of the renewable energy used in the U.S., more than ten times solar and wind energy combined.

Biomass is used for the cogeneration of steam and electricity in the industrial sector, power in the electricity sector, liquid transportation fuel in the transportation sector and heating in commercial and residential buildings. Readily available in Wisconsin, biomass can produce low or near zero carbon emissions (biomass based CO_2 released when creating energy can be offset by the CO_2 consumed when growing) and thus play a central role in addressing climate change.

Biomass in combination with energy efficiency, energy conservation and sustainable harvesting practices is our state's competitive advantage in renewable energy. Growing and processing our own farm and forest made fuels keeps our energy dollars here and is a positive step toward energy independence. Today Wisconsin exports $5.7 billion each year to purchase fuels, primarily coal and natural gas, produced in other states.[1] By generating Wisconsin grown fuels we can create jobs, generate nearly $1 billion for Wisconsin's economy and help achieve Governor Doyle's goal of 25% renewable energy by 2525. There are more than 200 commercial and industrial biomass energy systems in Wisconsin. Work has begun in Wisconsin to focus on market development and supply strategies to accelerate the rate at which baseload; dispatchable renewable energy is deployed, and find new ways to finance renewable energy in the state.

The Wisconsin Department of Agriculture Trade and Consumer Protection (WDATCP) together with the Wisconsin Office of Energy Independence (OEI), and the Wisconsin Department of Natural Resources (WDNR), are coordinating the Wisconsin Biomass Market Development Initiative (BMDI). This initiative is fashioned to facilitate the development and growth of a sustainable and reliable biomass energy market in Wisconsin. Specific focus will be placed on unmanaged and undermanaged woodlands, marginal agricultural acres and energy cropping (i.e. perennial grasses such as switchgrass and woody crops such as hybrid poplar or willow) systems. Creating a stable supply of farm and forest materials within the state for use in the production of renewable energy will create new jobs and keep energy funds in Wisconsin, rather than exporting them out-state.

BCAP Purpose: The BCAP was designed to support agricultural producers in producing biomass crops and collecting biomass for sale to commercial-scale facilities that commit in writing to use the biomass to produce fuels or power. The program is also intended to improve water quality through reduced water use and surface water protection. Environmental quality can increase with less fertilizer compared to traditional row crops and encouraging the use of perennial crops, which are better for soil, air, water and wildlife. The program has two distinct pieces: 1) biomass crop establishment; and 2) assistance for the harvest, storage, processing and transportation of biomass materials for energy.

[1] Wisconsin Energy Statistics (2007 ed.) p. 53

BCAP Funding: Congress funded BCAP on a "Such Sums as are necessary" basis. This funding designation means that the funding is mandatory but the amount is not specified. The "as necessary" part means Congress intended the eligible demand to be funded. That means no national competition for funds, just a test for eligibility. However, some overall spending caps may be placed on the final program.

BCAP Eligibility: To participate in the biomass crop establishment portion of the program, a group of farmers or a "biomass conversion facility" (any facility that will use the biomass to make biobased products or energy, heat, power, or advanced biofuels) must submit an application to USDA that defines the borders of the proposed production area and identifies the variety of biomass crop to be used at the facility. The application also must include a commitment from at least one biomass conversion facility in the area to use the biomass in their facility. All biomass production must occur on either agricultural land or industrial private forest land. USDA will determine whether projects meet the minimum threshold for selection, based on criteria in the statute and others to be determined by USDA (presumably through rulemaking.) The statutory criteria include:

- The amount of crops to be produced and the likelihood that they will actually be used to produce energy
- The amount of biomass likely to be available from sources other than the crops grown with support from the BCAP
- The local economic impact of the project
- The opportunity for local investors to participate in the ownership of the facility
- The participation of beginning or socially disadvantaged farmers
- The environmental impacts of the proposal
- The variety of agronomic practices and species – including mixes of different crops – proposed within a BCAP area
- The range of crops across projects areas

Incentives to Landowners: Ag producers in project areas will receive a payment for up to 75% of establishment costs. Establishment costs refer to the costs to convert lands from an existing use to the new energy crop. Incentives also include an annual payment intended to compensate the producer for the opportunity cost associated with growing an energy crop on the land. Land that was formerly in a row crop will likely receive more than land that was fallow or pasture. The annual payments can continue for up to 5 years if the producer is growing a perennial grass and up to 15 years if the crop is trees. Ag producers are required to implement a conservation plan on the enrolled land and to agree to provide information to USDA for research purposes.

Incentives to Biomass Aggregators: Any person collecting and selling biomass crops or agricultural or forest waste for energy is entitled to receive this payment. The payment is structured as a match; whatever the biomass collector (whether the farmer or some other person) is paid by the biomass user facility, USDA will match dollar for dollar, up to $45 per dry ton. Materials not eligible for this payment include animal waste and byproducts, food and yard waste and algae.

Final BCAP rules should be out for comment in the late 2009. It will be important to review these rules to make sure Wisconsin can participate to the greatest extent possible.

Finally, sustainable harvesting will be a key to long-term program success. It is important that Wisconsin closely monitor any changes in land use. Partnerships with university researchers in these early stage projects could be important to determine how much waste can be removed from agriculture and forest lands. Likewise, as energy crops begin to be grown, early monitoring should occur for any unintended environmental consequences.

The Biomass Crop Assistance Program will be a critical federal-state-private sector partnership to increase biomass to energy for Wisconsin and the nation.

Where can Wisconsin move ahead of the pack in growing the bioeconomy and move eventually to cellulosic biofuels?

We can start by building up the use of other biomass feedstocks such as switchgrass and hybrid poplar with smaller scale energy projects such as pelletization to heat. This goes back to my earlier comments about don't ignore the linkage between biofuels, biopower and bioproducts. DATCP funded a study on switchgrass that makes some very positive recommendations on these smaller scale projects.

I highly recommend Wisconsin considered an advanced renewable tariff or what are sometimes called feed-in tariffs. This concept is included in the pending legislative draft that has the recommendations from the Governor's Global Warming Task Force. The Advanced Renewable Tariff would be a tremendous catalyst for greater use biomass to energy in Wisconsin. It can open the door to a faster track for biomass aggregation for cellulosic ethanol too.

We can start to build the growing, harvesting, collecting, storage and delivery infrastructure that will be needed for switchgrass or woody biomass. Smaller scale biomass to energy projects are a key starting point for Wisconsin. We should look to enhance the Fuel for Schools program, convert more state burners to biomass burners, encourage ethanol plants to shift to biomass for power, enhance the use of Combined Heat and Power. That can encourage the small wood lot owners to develop something like biomass supply cooperatives or for farmers to grow switchgrass and work with our network of farm supply cooperatives to aggregate and deliver switchgrass for energy.

That infrastructure is needed for us to make the next step to cellulosic ethanol. Once we build that infrastructure, the big step to an integrated cellulosic biorefinery that makes biofuels, likely bioproduct or co-products, and is heated or maybe fully run on biopower. That integrated cellulosic biorefinery is when we will have a robust carbon reducing and true energy independent bioeconomy in Wisconsin. We can start to build that system today.

I thank you for listening and will try to answer your questions.

WMC

WISCONSIN'S BUSINESS VOICE SINCE 1911

TO: Senate Committee on Rural Issues, Biofuels and Information Technology
Assembly Committee on Renewable Energy & Rural Affairs

FROM: Scott Manley, Environmental Policy Director

DATE: October 7, 2009

RE: Senate Bill 279 & Assembly Bill 408

Wisconsin Manufacturers & Commerce (WMC) is opposed to provisions in Senate Bill 279 and Assembly Bill 408 that would give the Department of Agriculture Trade & Consumer Protection (DATCP) the authority to enact statewide ethanol or other biofuel mandates by rule. For the reasons cited below, we respectfully ask that you remove those provisions from this legislation.

WMC is the state's largest business trade association, with nearly 4,000 members in the manufacturing, service, health care, retail, energy, banking, insurance and other service sectors of our economy. WMC is dedicated to making Wisconsin the most competitive state in the nation to do business, and toward that goal, we support consistent, cost-effective and market-driven regulatory approaches that recognize a balance between environmental protection and the competitiveness of Wisconsin's jobs and economy.

WMC wishes to commend the members of the Legislative Council Special Committee on Domestic Biofuels for their effort to balance the interests of stakeholders while seeking to maintain Wisconsin's position as a leader in biofuel production. WMC has no objection to many of the policies proposed in Senate Bill 279 and Assembly Bill 408, however, we are very concerned with the provision that would allow DATCP to impose an ethanol sales mandate on Wisconsin consumers.

An ethanol mandate is not needed to ensure sales of biofuel in Wisconsin

Although attempting to spur growth in Wisconsin's biofuel industry is a laudable goal, a Wisconsin ethanol sales mandate is not necessary to ensure demand for production. ***The federal Renewable Fuel Standard (RFS2) will nearly triple the amount of renewable fuel required in the United States from 5.4 billion gallons in 2008 to 15.2 billion gallons by 2012.***

The following table shows that 36 billion gallons of ethanol will be required under existing federal law by the year 2022. Because the majority of ethanol production occurs in Midwest states like Wisconsin, and because the cost of shipping ethanol long distances is prohibitive, the Wisconsin fuel market will necessarily absorb a significant portion of the federally-required biofuel production -- without the need to enact a Wisconsin ethanol sales mandate.

Wisconsin Ethanol/Biofuel Sales Requirements Under SB 279 & AB 408

	RFS2 Total Renewable Volume (billion gal)	RFS2 Bio Diesel (billion gal)	RFS2 Plus 10% (billion gal)	SB 279 Sales Mandate (million gal)	2007 Wisconsin Gasoline Sales (million gal)	SB 279 Mandate as Percentage of 2007 Sales
2010	12.95	0.65	13.53	**247.6**	**2434.2**	**10.2%**
2011	13.95	0.8	14.465	**264.7**	**2434.2**	**10.9%**
2012	15.2	1	15.62	**285.8**	**2434.2**	**11.7%**
2013	16.55	1	17.105	**313.0**	**2434.2**	**12.9%**
2014	18.15	1	18.865	**345.2**	**2434.2**	**14.2%**
2015	20.5	1	21.45	**392.5**	**2434.2**	**16.1%**
2016	22.25	1	23.375	**427.8**	**2434.2**	**17.6%**
2017	24	1	25.3	**463.0**	**2434.2**	**19.0%**
2018	26	1	27.5	**503.3**	**2434.2**	**20.7%**
2019	28	1	29.7	**543.5**	**2434.2**	**22.3%**
2020	30	1	31.9	**583.8**	**2434.2**	**24.0%**
2021	33	1	35.2	**644.2**	**2434.2**	**26.5%**
2022	36	1	38.5	**704.6**	**2434.2**	**28.9%**

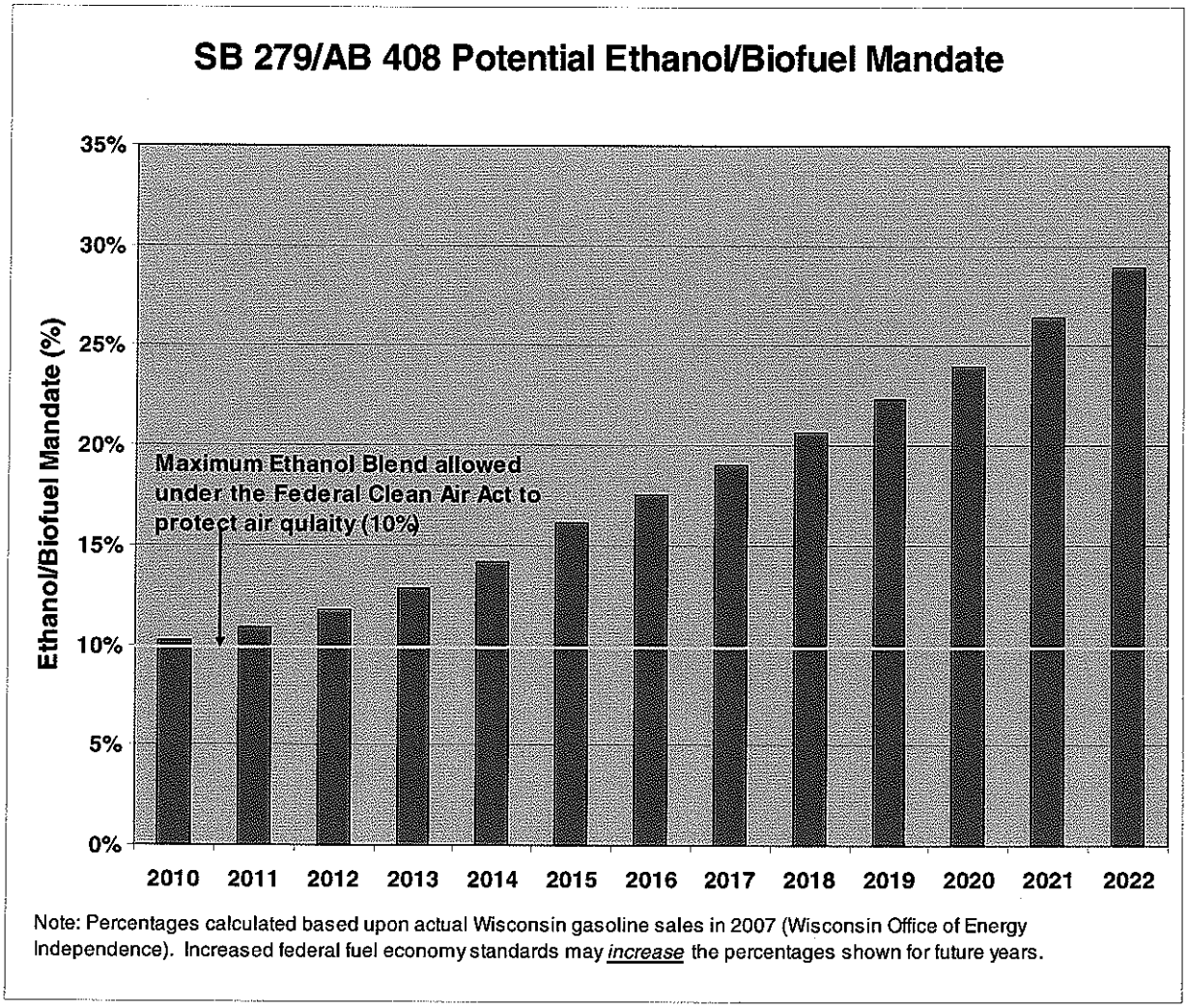
SB 279 and AB 408 could result in a 30% ethanol mandate

Because the ethanol/biofuel production mandates under the federal RFS2 automatically increase each year, the potential sales mandate proposed by Senate Bill 279 and Assembly Bill 408 grows considerably over time. By the year 2022, the legislation would establish a Wisconsin biofuel sales goal exceeding 704 million gallons, which DATCP would be authorized to mandate by rule. **Based upon 2007 gasoline sales in Wisconsin, this would amount to a 28.9% ethanol mandate**.

assumes no increase in fuel consumption in 15 years

Given the significant tightening of federal fuel efficiency standards, it is very possible that Wisconsin's gasoline consumption will decrease below 2007 levels in future years, **which may increase the percentage of the ethanol mandate proposed by these bills to 30% or more**.

Furthermore, the biofuel consumption mandates DATCP is authorized to impose under this legislation would be difficult, if not impossible, to achieve. A 2006 study conducted at the University of Minnesota found that converting all land used for corn growing in the United States for ethanol production would displace only 12% of gasoline. Similarly, utilizing all soybean crops for biofuel would displace only 6% of diesel consumption. As noted in the chart on the following page, the proposed legislation would require ethanol or other biofuel sales far exceeding the capacity of growers to use crops for fuel instead of food.



Fuel mandates will lead to increased prices for consumers

When commodity prices for fuel are driven by the economic laws of supply and demand, the market will deliver the lowest-cost price for consumers. Conversely, when government interferes in commodity markets by mandating supply and demand, it allows suppliers to manipulate price. WMC is concerned that Senate Bill 279 and Assembly Bill 408 give DATCP the authority to create a "captive market" by mandating annual ethanol sales by rule.

If ethanol suppliers know that Wisconsin consumers will be forced to purchase state-mandated amounts of ethanol each year, they are likely to raise their prices beyond what consumers would otherwise be willing to pay. At a time when Wisconsin is struggling to regain its financial footing, we cannot afford to squeeze family budgets even tighter with fuel mandates that increase pump prices.

Federal Law Prohibits Ethanol Blends Above 10%

Because of concerns related to air quality, the federal Clean Air Act generally limits the amount of ethanol that can be blended with gasoline to 10%. As noted above, Senate Bill 279 and Assembly Bill 408 would authorize DATCP to set ethanol/biofuel sales mandates that could exceed 30%. It is unclear how this sales mandate would reconcile with the federal ethanol blending cap, especially since E85 accounted for only 0.2% of statewide gasoline consumption in 2007.

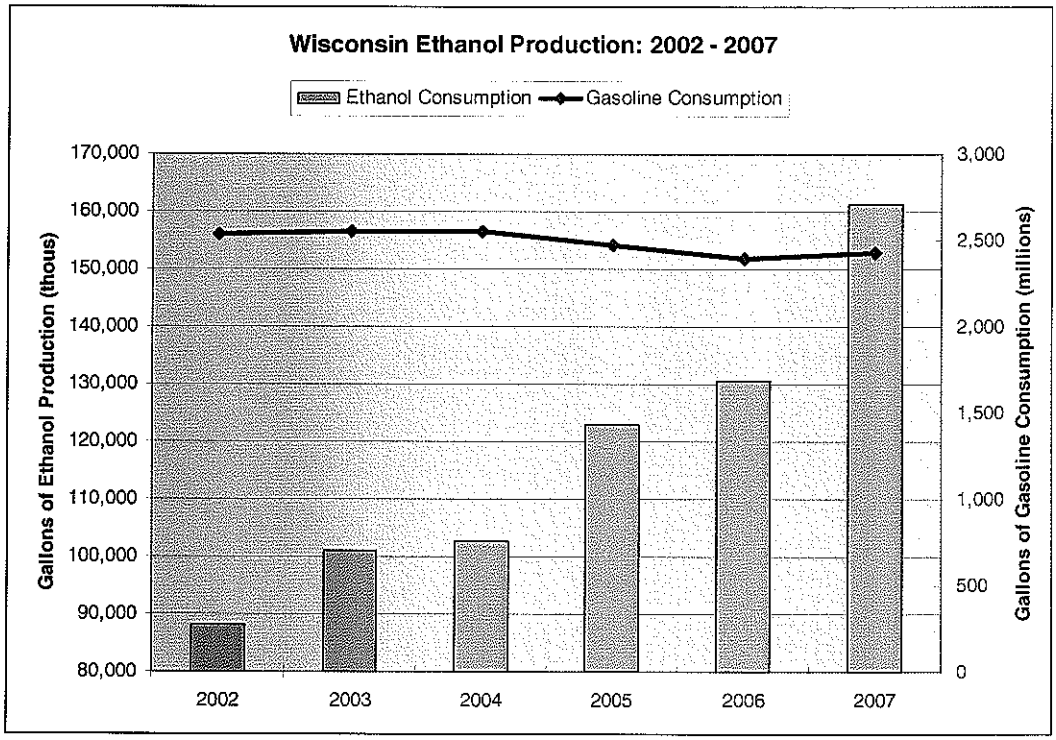
Allowing unelected bureaucrats to enact fuel mandates is bad policy

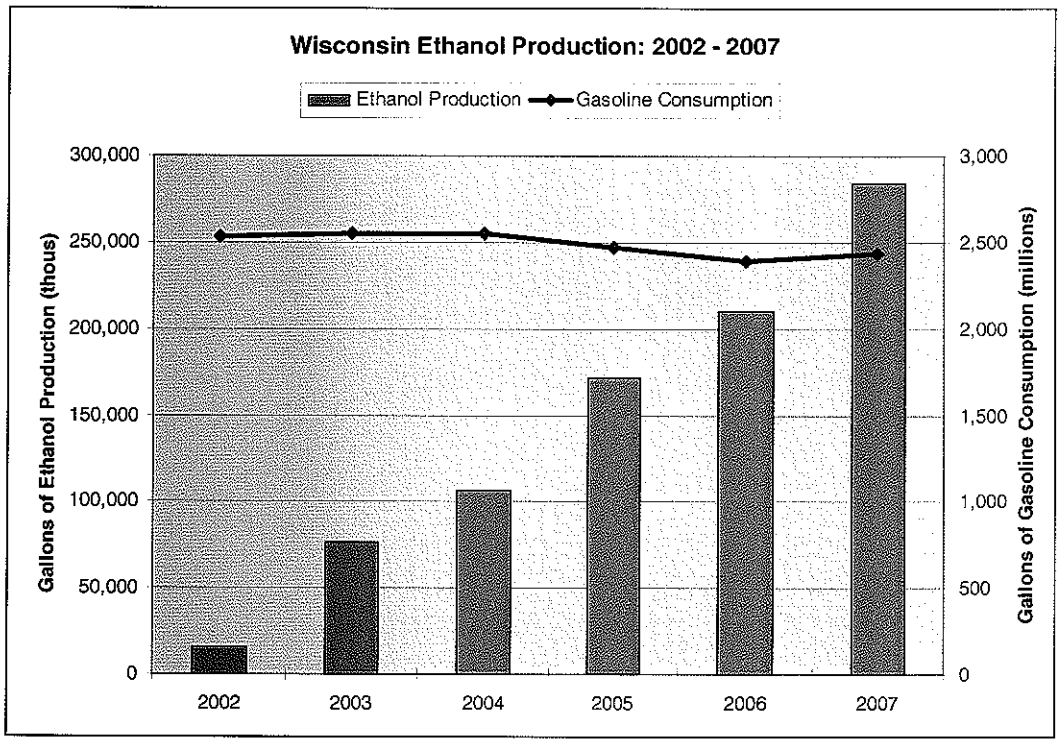
Wisconsin consumes billions of gallons of motor fuel each year, and consumers spend billions of dollars each year to purchase the fuel needed for cars, trucks, boats, ATV's, snowmobiles, motorcycles and outdoor power equipment. Wisconsin should not allow unelected bureaucrats, however well-intentioned they may be, to set our state's fuel policy by administrative rule. Price increases resulting from fuel mandates could have a profoundly negative consequence on Wisconsin consumers, and therefore should not be left to the whim of state employees who are not accountable to the voters of this state.

Thank you for your thoughtful consideration of our position on Senate Bill 279 and Assembly Bill 408. We hope you will consider removing the language authorizing DATCP to establish renewable fuel sales mandates from this legislation prior to its passage. Please feel free to contact me if you have any questions, or if I can provide you with additional information, at (608) 258-3400 or smanley@wmc.org.

An Ethanol Mandate Is Not Needed to Ensure Continued Growth in Wisconsin Ethanol Production and Consumption

As the charts below demonstrate, Wisconsin ethanol consumption and production has grown dramatically, even as statewide gasoline consumption has remained relatively flat – without the need for a government mandate.





State of Wisconsin
Jim Doyle, Governor

Office of Energy Independence
Judy Ziewacz, Director

October 7, 2009
Testimony of the Wisconsin Office of Energy Independence
SB 279
Senate Committee on Rural Issues, Biofuels and Information Technology

Chairman Kreitlow and Members:

Our office commends your work, Senator Kreitlow and that of your Assembly colleague, Rep. Suder, in leading the Joint Legislative Council Committee on Biofuels in the process that developed this legislation.

Underscoring the need to move forward in making progress in deploying and using more biofuels in Wisconsin is a little-noticed chart that OPEC recently posted on its website. The chart indicated that Russia is now the world's leading oil producer, moving ahead of Saudi Arabia.

This is a reminder that our country's national security and economic security are at stake in this issue of transportation fuels. The need to maintain the effort to produce our own, homegrown fuels here is Wisconsin has never been greater. We have no oil or natural gas in Wisconsin. But we do have more abundant biofuels feedstocks--of many kinds--than most other states in the country. Let's use them.

Biofuels hold great promise for business and economic development, as well as energy security in Wisconsin. Transformational technologies such as Virent Energy's BioForming process have potential to change the petroleum industry. Other fuels such as cellulosic ethanol and biobutanol will eventually be produced in quantities sufficient to allow us to rely on ourselves more, and less of foreign countries for our transportation fuels.

This legislation requires the Office of Energy Independence to perform various responsibilities; we stand ready to carry out these and any other duties the Legislature and the Governor require that we perform. Our Office prepares, by statute, an annual report on alternative fuels, and our Biofuels Coordinator, Maria Redmond has worked hard and successfully at obtaining federal funding for Wisconsin petroleum marketers for biofuels infrastructure all over the state.

Biofuels now contributes about billion dollars to our state's economy, just in the direct value of manufactured product. It had created hundreds of jobs, and millions of dollars in property tax revenue. All this has happened in the space of a few years. Governor Doyle has strongly supported these efforts with Executive Orders #141 and #192.

We hope that the Committee can move this legislation forward and increase our use of biofuels in Wisconsin.

Thank you. We'd be happy to answer any questions.